UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,652	09/10/2003	Muxiang Zhang	02-8027	3700

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EXAMINER
POLTORAK, PIOTR

ART UNIT	PAPER NUMBER
2134	

NOTIFICATION DATE	DELIVERY MODE
09/24/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@verizon.com

	Application No.	Applicant(s)
	10/659,652	ZHANG, MUXIANG
Office Action Summary	Examiner	Art Unit	
	PETER POLTORAK	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,18-25 and 34-41* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-4,18-21 and 34-37* is/are rejected.
7)☒ Claim(s) *5-8, 22-25 and 38-41* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20080916

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth

   in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

   application is eligible for continued examination under 37 CFR 1.114, and the fee set

   forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

   has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

   7/14/08 has been entered.

Response to Amendment

2. Applicant arguments have been carefully considered.

3. Applicant arguments are essentially directed towards the newly introduced

   limitations which required new search and consideration. Applicant arguments are

   moot in light of newly offered rejection. The newly introduced limitations are

   explicitly addressed in this Office Action, below.

4. Claims 1-8, 18-25 and 34-41.

   The text of those sections of Title 35, U.S. Code not included in this action can be

   found in a prior Office action.

Claim Objections

5. Claims 1-2, 18-19 and 34-35 objected to because the body of the claims do not

   support in claim's preamble. Although claims are directing towards facilitating

   authentication, no authentication steps are recited in claims 1-2, 18-19 and 34-35.

6. Claims 3-8, 20-25 and 36-41 are objected to by virtue of their dependence.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. Claims 1-4, 18-21 and 34-37 remain rejected under 35 U.S.C. 103(a) as being

unpatentable over Aura (USPN 6711400) or, in alternative over Aura in view of

Netanel (USPUB 2003/0166398).

As per claims 1, 18 and 34, Aura discloses a system and a method for facilitating

authentication in a wireless network comprising:

   a.   receiving an initial nonce value (RAND1) and a mobile station message

         authentication code value (IMSI) from a serving mobile network (VPLMN)

         in an authentication data request (data comprising IMSI, RAND1 values)

         associated with a user device (MS), the initial nonce value originating from

         the user device (object 401, Fig. 4) and the message authentication code

         value is determined at the mobile station from data originating from the

         user device (A user station is a subset of mobile station MS; thus data

         such as IMSI in a user station is a subset of all MS' data. Thus the user

         device sending the message authentication code value must be

         determined at the mobile station. See USPUB 2003/0157926, for

         example).

   b.   generating a subsequent nonce value (RAND2) from the initial nonce

         value based on a first authentication function that is shared with the user

device (object 404, algorithms A3 and A8, Fig. 4, col. 2 lines 27-col. 3 line

19);

    c.   generating an authentication vector (405) associated with the user device,

the authentication vector including the subsequent nonce value; and

transmitting the authentication vector to the serving mobile network (Fig.

4).

8. In Aura's invention the message authentication code value is determined (includes)

only the data originating from the user device (IMSI) but does not teach data

originating from serving mobile network.

However, this difference is only found only in non-functional limitation descriptive

material and do not alter the essence of the method disclosed by Aura (i.e., the

descriptive material does not affect facilitating authentication). Thus, this descriptive

material will not distinguish the claimed invention from the prior art in terms of

patentability, see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir.

1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

9. Additionally, it is noted that Aura's invention offers two-way authentication, wherein

MS and HLR/AUC are authenticated (see Aura, Fig. 4). Starting the authentication

process at the HLR/AUC side would have been an obvious variation of the two-way

authentication disclosed by Aura (there is only predictable number of solution: i.e.

the process started at MS, HLR/AUC or VPLMN. See KSR ruling). Note that

starting the process at HLR/AUC (HLR/AUC initiate a random value to be sent to

MS, then MS operate on the random value to generate a second random value and

sending the second random value with IMSI, that then would be verified by

VLR/AUC (verification would create a subsequent random value)) would meet the

claimed limitation.

10. Furthermore, Netanel teaches the message authentication code value in addition to

the value determined on the data originating from the user device

(IMSI/MSIDSiwaID) also discloses data originating from serving mobile network

(RAND is received from BS/MSC/VLR).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to include data determined at the mobile station and originated from the

serving mobile network in the message authentication code value as taught by

Netanel given the benefit of session authentication (see Fig. 1A and associated text,

for example).

11. As per claims 2, 19 and 35, Aura discloses receiving an International Mobile Station

Identifier (IMSI) corresponding to the user device from the serving mobile network

(Fig. 4).

12. As per claims 3-4, 20-21 and 36-37, Aura discloses receiving a visiting location

register randomized authentication value (SRES1), a mobile station randomized

authentication value (Kc) and a mobile station message authentication value

(SRES2'), generating a visiting location register randomized authentication value

(SRES2) based on the visiting location register randomized authentication value and

determining whether the visiting location register randomized authentication value

(carried out by evaluating a second authentication function with the visiting location

register randomized authentication value and the mobile station randomized

authentication value as inputs) equals the mobile station message authentication

(409).

Allowable Subject Matter

Claims 5-8, 22-25 and 38-41 overcome the art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peter Poltorak whose telephone number is (571) 272-

3840. The examiner can normally be reached Monday through Thursday from 9:00

a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Peter Poltorak/

Examiner, Art Unit 2134

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2134